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Legal Department



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Washington, D.C. 20231

JUNE 27, 2000

SYMYX TECHNOLOGIES, INC.  
RON KARSNOW  
LEGAL DEPARTMENT  
3100 CENTRAL EXPRESSWAY  
SANTA CLARA, CA 95051

PTAS



\*101342172A\*

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UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 04/10/2000

REEL/FRAME: 010735/0613  
NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:  
SHENGHENG, GUAN

DOC DATE: 03/24/2000

ASSIGNOR:  
SAM, BERGH H.

DOC DATE: 03/24/2000

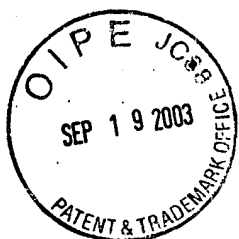
ASSIGNEE:  
SYMYX TECHNOLOGIES, INC.  
LEGAL DEPARTMENT  
3100 CENTRAL EXPRESSWAY  
SANTA CLARA, CALIFORNIA 95051

SERIAL NUMBER: 09518794  
PATENT NUMBER:

FILING DATE: 03/03/2000  
ISSUE DATE:

010735/0613 PAGE 2

LAWAN FLETCHER, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS



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DEC 18 1998

RADER, FISHMAN & GRAUER

DECEMBER 15, 1998



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

PTAS

RADER, FISHMAN & GRAUER, PLLC  
MATTHEW J. RUSSO  
1533 N. WOODWARD AVENUE, SUITE 140  
BLOOMFIELD HILLS, MI 48304



\*100824101A\*

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

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65304-003

RECORDATION DATE: 08/27/1998

REEL/FRAME: 9418/0682  
NUMBER OF PAGES: 4

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:  
GUAN, SHENHENG

DOC DATE: 08/18/1998

ASSIGNOR:  
VAN ERDEN, LYNN

DOC DATE: 08/21/1998

ASSIGNOR:  
HAUSHALTER, ROBERT C.

DOC DATE: 08/21/1998

ASSIGNOR:  
ZHOU, XIAO PING

DOC DATE: 08/17/1998

ASSIGNOR:  
WANG, XUEJUN JASON

DOC DATE: 08/17/1998

ASSIGNOR:  
SRINIVASAN, RAVI

DOC DATE: 08/17/1998

9418/0682 PAGE 2

ASSIGNEE:

SYMYX TECHNOLOGIES  
3100 CENTRAL EXPRESSWAY  
SANTA CLARA, CALIFORNIA 95051

SERIAL NUMBER: 09093870  
PATENT NUMBER:

FILING DATE: 06/09/1998  
ISSUE DATE:

TARA WASHINGTON, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

# ASSIGNMENT OF PATENT APPLICATION

JOINT

WHEREAS, Shengheng Guan, residing at 1512 Fairway Glen Circle, San Jose, California 95131 and H. Sam Bergh, residing at 2027 18<sup>th</sup> Street, San Francisco, California 94107, hereinafter referred to as "Assignors," are the inventors of the invention described and set forth in the below identified application for United States Letter Patent:

Title of Invention: CHEMICAL PROCESSING MICROSYSTEMS, DIFFUSION-MIXED MICROREACTORS AND METHODS FOR PREPARING AND USING SAME

Filing Date: March 3, 2000 Application No.: 09/518,794 and

WHEREAS, Symyx Technologies, Inc., a Delaware corporation, located at 3100 Central Expressway, Santa Clara, California 95051, hereinafter referred to as "Assignee," is desirous of acquiring an interest in the invention and application and in any Letters Patent and Registrations which may be granted on the same;

For good and valuable consideration, receipt of which is hereby acknowledged by Assignors, Assignors have assigned, and by these presents do assign to Assignee all right, title and interest in and to the invention and application, and to all foreign counterparts (including patent, utility model and industrial designs), and in and to any Letters Patent and Registrations which may hereafter be granted on the same in the United States and all countries throughout the world, and to claim the priority from the application as provided by the Paris Convention. The right, title and interest is to be held and enjoyed by Assignee and Assignee's successors and assigns as fully and exclusively as it would have been held and enjoyed by Assignors had this assignment not been made, for the full term of any Letters Patent and Registrations which may be granted thereon, or of any division, renewal, continuation in whole or in part, substitution, conversion, reissue, prolongation or extension thereof.

Assignors further agree that they will, without charge to Assignee, but at Assignee's expense, (a) cooperate with Assignee in the prosecution of U.S. Patent applications and foreign counterparts on the invention and any improvements, (b) execute, verify, acknowledge and deliver all such further papers, including patent applications and instruments of transfer and (c) perform such other acts as Assignee lawfully may request to obtain or maintain Letters Patent and Registrations for the invention and improvements in any and all countries, and to vest title thereto in Assignee, or Assignee's successors and assigns.

ASSIGNMENT OF PATENT APPLICATION

WHEREAS, Shenheng Guan, Lynn Van Erden, Robert C. Haushalter, Xiao Ping Zhou, Jason Wang, and Ravi Srinivasan residing respectively at 1512 Fairway Green Circle, San Jose, CA 95131; 1261 Bordeaux St., Livermore, CA 94550; 25259 Terrace Grove, Los Gatos, CA 95033; 1249 Coronado Dr. #5, Sunnyvale, CA 94086; ~~1255 Coronado Dr. #6, Sunnyvale, CA 94086~~; and 1600 Villa St. #310, Mountain View, CA 94041, hereinafter referred to as "Assignors," are the inventors of the invention described and set forth in the below identified application for United States Letter Patent:

Title of Invention: PARALLEL FIXED BED REACTOR AND FLUID CONTACTING APPARATUS AND METHOD

Filing Date: June 9, 1998 Application No.: 09/093,870; and

WHEREAS, **Symyx Technologies**, a California corporation, located at 3100 Central Expressway, Santa Clara, California 95051, hereinafter referred to as "Assignee," is desirous of acquiring an interest in the invention and application and in any Letters Patent and Registrations which may be granted on the same;

For good and valuable consideration, receipt of which is hereby acknowledged by Assignors, Assignors have assigned, and by these presents do assign to Assignee all right, title and interest in and to the invention and application, and to all foreign counterparts (including patent, utility model and industrial designs), and in and to any Letters Patent and Registrations which may hereafter be granted on the same in the United States and all countries throughout the world, and to claim the priority from the application as provided by the Paris Convention. The right, title and interest is to be held and enjoyed by Assignee and Assignee's successors and assigns as fully and exclusively as it would have been held and enjoyed by Assignors had this assignment not been made, for the full term of any Letters Patent and Registrations which may be granted thereon, or of any division, renewal, continuation in whole or in part, substitution, conversion, reissue, prolongation or extension thereof.

Assignors further agree that they will, without charge to Assignee, but at Assignee's expense, (a) cooperate with Assignee in the prosecution of U.S. Patent applications and foreign counterparts on the invention and any improvements, (b) execute, verify, acknowledge and deliver all such further papers, including patent applications and instruments of transfer and (c) perform such other acts as Assignee lawfully may request to obtain or maintain Letters Patent and Registrations for the invention and improvements in any and all countries, and to vest title thereto in Assignee, or Assignee's successors and assigns.

IN TESTIMONY WHEREOF, Assignors have signed their names on the dates indicated.

Date: 8/18/98

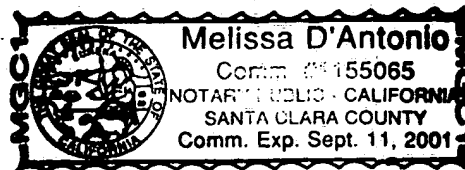
[Signature]  
Shenheng Guan

STATE OF California  
COUNTY OF Santa Clara

On August 18, 1998, before me, Melissa D'Antonio, Notary Public, personally appeared Shenheng Guan, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal

Signature Melissa D'Antonio (Seal)



Date: 08/17/98

Xuejun  
Jason Wang

*[Signature]*

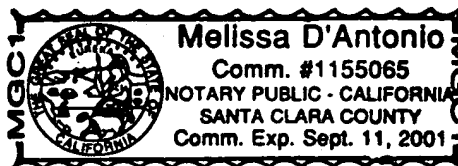
STATE OF California

COUNTY OF Santa Clara

On August 17, 1998, before me, Melissa D'Antonio, Notary Public, personally appeared Jason Wang, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal

Signature Melissa D'Antonio (Seal)



Date: 17 Aug. 1998

*[Signature]*  
Ravi Srinivasan

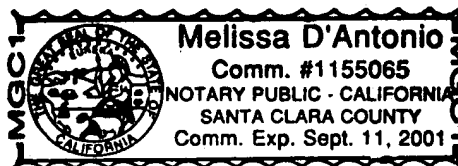
STATE OF California

COUNTY OF Santa Clara

On August 17, 1998, before me, Melissa D'Antonio, Notary Public, personally appeared Ravi Srinivasan, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal

Signature Melissa D'Antonio (Seal)



R0034373

Date: 8-21-98

Lynn Van Erden  
Lynn Van Erden

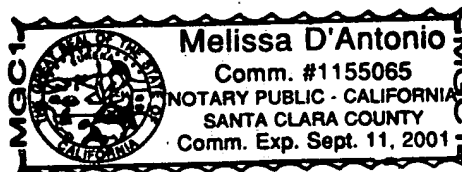
STATE OF California

COUNTY OF Santa Clara

On August 21, 1998, before me, Melissa D'Antonio, Notary Public, personally appeared Lynn van Erden, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal

Signature Melissa D'Antonio (Seal)



Date: 8/21/98

Robert C. Haushalter  
Robert C. Haushalter

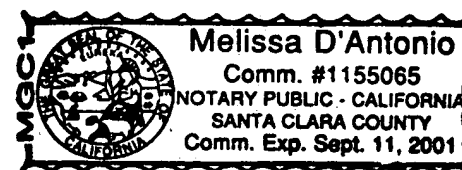
STATE OF California

COUNTY OF Santa Clara

On August 21, 1998, before me, Melissa D'Antonio, Notary Public, personally appeared Robert C. Haushalter, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal

Signature Melissa D'Antonio (Seal)



Date: 08/28/98

Xiao Ping Zhou  
Xiao Ping Zhou

STATE OF California

COUNTY OF Santa Clara

On August 17, 1998, before me, Melissa D'Antonio, Notary Public, personally appeared Xiao Ping Zhou, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal

Signature Melissa D'Antonio (Seal)





IN TESTIMONY WHEREOF, Assignors have signed their names on the dates indicated.

Date: 3/24/2000

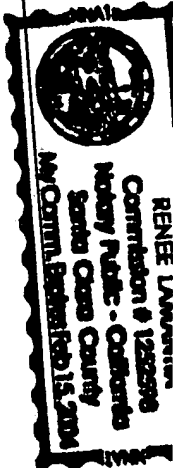
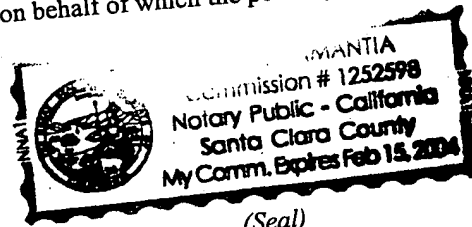
Shenheng Guan  
Shenheng Guan

STATE OF California  
COUNTY OF Santa Clara

On 3/24/00, before me, Renee Lamantia Notary Public, personally appeared Shenheng Guan personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature Renee Lamantia



Date: 3/24/2000

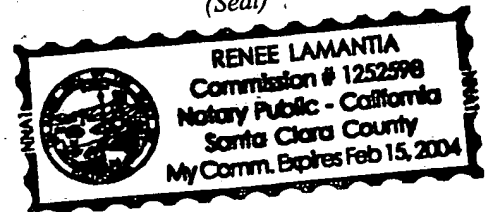
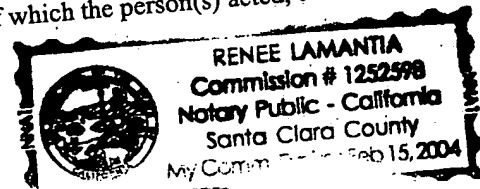
H. Sam Bergh  
H. Sam Bergh

STATE OF California  
COUNTY OF Santa Clara

On 3/24/00, before me, Renee Lamantia Notary Public, personally appeared H. Sam Bergh personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal

Signature Renee Lamantia



09-08-1998

FORM PTO-1596 (MODIFIED)

(REV. 6-93)

OMB NO. 0651-0011

P09/REV01



/ER

U.S. DEPARTMENT OF COMMERCE

Patent and Trademark Office

100824101

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

## 1. Name of the conveying party(ies):

Shenheng Guan, Lynn Van Erden, Robert C. Haushalter,  
Xiao Ping Zhou, Xuejun Jason Wang, and Ravi Srinivasan

- ☒ Individuals ☐ (Association)  
☐ General Partnership ☐ Limited Partnership  
☐ Corporation-Delaware ☐ Other: \_\_\_\_\_  
 Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

## 3. Nature of conveyance:

- ☒ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☐ Other: \_\_\_\_\_  
 Execution Date: \_\_\_\_\_

## 2. Name and address of receiving party(ies):

Name: Symyx Technologies

Internal Address:

Street Address:

3100 Central Expressway

City: Santa Clara State: CA Zip: 95051

- ☐ Individual(s) Citizenship \_\_\_\_\_  
☐ Association: \_\_\_\_\_  
☐ General Partnership: \_\_\_\_\_  
☐ Limited Partnership: \_\_\_\_\_  
☒ Corporation-State: California  
☐ Other: Non-Profit Organization

Additional name(s) & address(ies) attached? ☐ Yes ☒ No

## 4. Application number(s) or registration number(s):

A. Patent Application No.(s)

09/093,870

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

## 5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Matthew J. Russo (Reg. No. 41,282)

Internal Address: RADER, FISHMAN &amp; GRAUER PLLC

Street Address: 1533 N. Woodward Avenue, Suite 140

City: Bloomfield Hills State: Michigan Zip: 48304

## 6. Total number of applications and patents involved:

one

## 7. Total fee (37 CFR 3.41): .....\$ 40.00

- ☐ Enclosed  
☒ Authorized to be charged to deposit account

## 8. Deposit account number: 50-0496

DO NOT USE THIS SPACE

## 9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

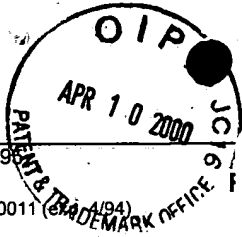
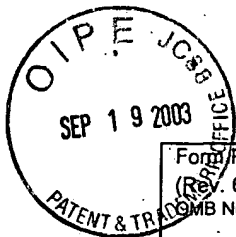
09/01/1998 KKHRLING 00000053 500496 09093870  
 Matthew J. Russo  
 FC:581 40.00 CH

Signature

August 24, 1998

Date

Total number of pages including cover sheet, attachments and document: 4 Atty. Docket No. 65304-003



Attorney's Docket No. 99-1CIP1  
PATENT

05-02-2000

US DEPARTMENT OF COMMERCE  
Patent and Trademark Office

Form PTO-159  
(Rev. 6-93)

OMB No. 0651-0011



101342172

To the Honorable Assistant Commissio  
Please record the attached original doc

1. Name of conveying party(ies)

Guan, Shengheng  
Bergh, H. Sam

Additional name(s) of conveying  
party(ies) attached?

☐ Yes ☒ No

2. Name and address of receiving party(ies)

Name: Symyx Technologies, Inc.  
Legal Department  
3100 Central Expressway  
Santa Clara, CA 95051

Additional name(s) & address(es) attached? ☐ Yes ☒ No

3. Nature of Conveyance:

☒ Assignment

☐ Merger

☐ Other

☐ Change of Name

Execution Date: 3/24/2000

Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s) 09/518,794

B. Patent No.(s)

Filed: 3/3/2000

09518794

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence  
concerning document should be mailed:

Attorney's Name: Ron Krasnow

Name: Symyx Technologies, Inc.  
Legal Department  
3100 Central Expressway  
Santa Clara, CA 95051

6. Total number of applications and patents involved:

1

7. Total fee (37 CFR 3.41):.....\$ 40.00

☐ Enclosed

☒ Authorized to be charged to deposit account

8. Deposit account number: 50-0496

(Attached duplicate copy of this page if paying by deposit  
account)

9. Statement and signature:

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of  
the original document.

Paul A. Stone Reg. No. 38,628  
(Name of Person Signing)

Signature

4-3-00  
Date

Total number of pages being submitted, including cover sheet, attachment(s), and document(s) are: 3

Mail documents to be recorded with required cover sheet information to:

Box Assignments  
Assistant Commissioner of Patents and Trademarks  
Washington, DC 20231

05/01/2000 TTON11 00000310 500496 09518794  
01 FC:581 40.00 CH